

REMARKS

Reconsideration of the application is respectfully requested in view of the following responsive remarks. For the Examiner's convenience and reference, Applicant's remarks are presented in the order in which the corresponding issues were raised in the Office Action.

In the Office Action of January 30, 2006 the following actions were taken:

(1) Claims 1-2, 4-6, 8, 10-11, and 27-28 were rejected under 35 U.S.C. § 102(b) as being anticipated by Japanese Pat. No. 63-061065 (hereinafter "Pentel");

(2) Claims 3, 7, 9, and 12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Pentel in view of U.S. Pub. No. 2004/0110869 (hereinafter "Denninger") and U.S. Pat. No. 5,279,652 (hereinafter "Kaufmann");

(3) Claims 13-18 and 29-30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Denninger in view of Pentel and Kaufmann; and

(4) Claims 19-26 and 31-32 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Denninger in view of Pentel and Kaufmann.

It is respectfully submitted that the presently pending claims be allowed based on the remarks below.

Rejections Under 35 U.S.C. § 102

The Examiner has rejected claims 1-2, 4-6, 8, 10-11, and 27-28 as being anticipated by Pentel. Before discussing the rejection, it is thought proper to briefly state what is required to sustain such a rejection. It is well settled that "[a] claim is anticipated only if each and every element as set forth in the claims is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil of California*, 814 F.2d 628, 2 U.S.P.Q. 2d 1051, 1053 (Fed. Cir. 1987). In order to establish anticipation under 35 U.S.C. 102, all elements of the claim must be found in a single reference. *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 231 U.S.P.Q. 81, 90 (Fed. Cir. 1986), *cert. denied* 107 S.Ct. 1606 (1987). In particular, as pointed out by the court in *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1981), *cert denied*, 469 U.S. 851 (1984), "anticipation requires that each and every element of the claimed invention be disclosed in a prior art reference." "The identical invention must be shown in as complete detail as is contained in the...claim." *Richardson v. Suzuki Motor Co.* 9 U.S.P.Q. 2d 1913, 1920 (Fed.

Cir. 1989). Before, a detailed analysis of the claims is given, a brief description of the Pentel reference is thought proper.

Pentel

The Examiner references a highlighter ink composition from the Pentel abstract. The Pentel abstract (English translation) suggests that the purpose of the composition is to keep a highlighter pen tip “slightly drying” “even if the cap is kept removed for a long time.” (see Abstract). The abstract does not disclose any purpose or intent that the invention was to reduce smearing of highlighted images. The Examiner references the composition as containing a) a coloring material; b) an organic solvent; and c) an acid compound (including ascorbic acid). However, Pentel does not appear to disclose the use of a highlighter colorant that is an acid-functionalized pigment or a fluorescent colorant as required by the present invention.

Claims 1-2, 4-6, 8, 10-11, and 27-28

The Examiner has rejected independent claim 1 and dependent claims 2, 4-6, 8, 10-11, 27-28 under U.S.C. § 102. Independent claim 1 has been amended to include the limitations of claims 8 and 9. As noted by the Examiner in the present office action, Pentel does not disclose the use of a fluorescent colorant as found in claim 9 and now found in amended claim 1. However, the Examiner has alleged that Pentel discloses the acid-functionalized pigment of claim 8, which also had been added to amended claim 1.

An inspection of the Pentel Abstract reveals no such disclosure. As the Examiner noted, Pentel discloses that the “coloring material is dye or pigment.” See Office Action, page 4, ¶ 3. The fact that the composition also includes an acid does not convert the pigment to an acid-functionalized pigment. The Examiner has already concluded that the role of the additional acid is as an acid buffer in rejecting claims 2 and 4-6, noting that the acid is ascorbic acid and it is in the same pKa range and in the same weight percent range as claimed by the present invention. See Office Action, page 2, ¶ 1. Additionally, the Applicant has clearly differentiated acid buffers and acid-functionalized pigments in the specification. Specifically, the Applicant has stated that “although some of the highlighter ink colorants can be acid dyes, the addition of an acid buffering agent in accordance with the present invention can further reduce smearing of images during highlighting.” Page 6, lines 16-19.

Additionally, it is noted that amended claim 1 contains either an acid-functionalized pigment or fluorescent colorant. For the same reasons set forth above, it does not appear that Pentel discloses the use of a fluorescent colorant. Pentel is titled "Marking Ink," whereas the preamble of the claimed invention is drawn to a "highlighter ink." Thus, there does not appear to be any suggestion of using a fluorescent colorant in the cited Abstract. Thus, the independent claims are all believed to be in allowable condition over Pentel, and further, that all rejected dependent claims under this section are also in allowable condition. Thus, the Applicant respectfully requests that these rejections be withdrawn.

Rejections Under 35 U.S.C. § 103

The Examiner has rejected claims 1-26 U.S.C. § 103(a) as being unpatentable over several references.

The issue under § 103 is whether the PTO has stated a case of *prima facie* obviousness. According to the MPEP § 2142, the Examiner has the burden and must establish a case of *prima facie* obviousness. In order to maintain a *prima facie* case of obviousness by combining references, the prior art must provide some reason or motivation to make the claimed compositions. *In re Dillon*, 16 U.S.P.Q.2d 1897, 1901 (Fed. Cir. 1990). As aptly stated in *In re Jones*, 21 U.S.P.Q.2d 1941, 1943-44 (Fed. Cir. 1992):

"Before the PTO may combine the disclosure of two or more prior art references in order to establish *prima facie* obviousness, there must be some suggestion for doing so, found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art... Conspicuously missing from this record is any *evidence*, other than the PTO's speculation (if it be called evidence) that one of ordinary skill in the...art would have been motivated to make the modifications of the prior art necessary to arrive at the claimed (invention)."

It has been widely recognized that virtually every invention is a combination of elements and that most, if not all, of these will be found somewhere in an examination of the prior art. This reasoning lead the court, in *Connell v. Sears, Roebuck & Co.*, 220 U.S.P.Q. 193, 199 (Fed. Cir. 1983) to state:

"...it is common to find elements or features somewhere in the prior art. Moreover, most if not all elements perform their ordained and expected function. The test is whether the claimed invention as a whole, in light of all the teachings of the references in their entirety, would have been obvious to

one of ordinary skill in the art at the time the invention was made."
(underlining added)

In re Sernaker, 217 U.S.P.Q. 1, 5-6, (Fed. Cir. 1983) states a test to determine whether a rejection of an invention based on a combination of prior art elements is appropriate as follows:

"The lesson of this case appears to be that prior art references in combination do not make an invention obvious unless something in the prior art references would suggest the advantage to be derived from combining their teachings...The board never showed how the teaching of the prior art could be combined to make the invention." (underlining added)

With the above background in mind, the Applicant contends that a *prima facie* case of obviousness with respect to pending claims has not been met. Specifically, the references do not provide sufficient teachings or motivation to be modified or combined in order to arrive at Applicant's invention. Further, Applicant contends that the combination of references is based on hindsight. Therefore, without knowledge of the disclosure of the present invention, one of ordinary skill in the art would not be able to make the combinations proposed to arrive at the claimed invention.

Emphasis on the independent claims is provided herein, as the Applicant asserts that these claims are all patentably distinct over the prior art. Specifically, the Examiner has rejected claims 3, 7, 9, 12-26 and 29-32 as being obvious in view various combinations of prior art, each of which includes the following references: Pentel, Kaufmann, and Denninger. Thus, a brief discussion of the Denninger and Kaufmann references is believed to be in order. The Pentel reference is discussed above.

Denninger

Denninger teaches a highlighter composition that does not smear a printed image upon application. Denninger achieves this with a highlighter composition that includes: a polymer dispersion, polyvalent salts (such as zinc chloride, see Example 1), and water (other dyes, marking agents, additives, and moisture retaining agents are optional) (see paras. [0013] and [0014]). Denninger does not utilize an acid buffer as described and claimed by the Applicant. The Examiner claims that Denninger disclosed the use of succinic acid as a buffer in paragraph [0020]. However, this is incorrect. Denninger discloses the use of succinic acid

as a monomer in the polymer particle dispersion (in this case, a polyester) as required by the invention. Specifically, Denninger states “[s]uitable . . . monomers are . . . succinic acid.” (see [0020]). Therefore, the succinic acid is used to create the polymer dispersion, not an acid buffer. Furthermore, Denninger does not disclose the use of an acid buffer to reduce mobility of the colorants as argued by the Examiner. Denninger discloses the general mechanism as to how printed images are smeared by highlighters (see [0005]). Denninger then states additional problems (see paras. [0006]-[0008]) and specific cures that are ineffective (see [0009]-[0012]). In fact, Denninger teaches that one such ineffective solution for the smearing problem is to add acid to the highlighter composition, since “the addition of acids unstabilises [sic] the marking liquid itself.” (see para. [0009]).

Kaufmann

Kaufmann teaches the addition of an anti-blocking additive to a marking fluid to keep the marker tip from drying out. See abstract. Specifically, Kaufmann claims its invention is “directed to the use of solids as anti-blocking additives in common marking fluids . . . to provide a protecting and the evaporation hindering closure of the open, unprotected and unused capillary outlet opening.” See col. 1, lines 9-14. Kaufmann defines the problem as “the capillary opening” becomes “clogged or plugged due to the drying of the marking fluid.” See col. 1, lines 20-22. The solution requires a anti-blocking additive that “has the ability to crystallize out of the solvent” so that a “liquid crystalline to solid boundary [forms] hinder[ing] the evaporation of the solvent marking fluid.” See col. 2, lines 20-22; col. 3, lines 12-14. Kaufmann discloses that one anti-blocking agent can be an organic acid, including succinic acid. See col. 4, lines 43-45, 63.

Claims 3, 7, 9, and 12

The Examiner has rejected claims 3, 7, 9, and 12 as being unpatentable over Pentel in view of Denninger and Kaufmann. The Examiner identifies that Pentel lacks the teaching of (1) succinic acid as an acid buffer, (2) fluorescent colorant as a highlighter colorant, (3) water or diethylene glycol as a liquid vehicle, and (4) Acid Blue 9 as a highlighter colorant. The Examiner combines Pentel with Kaufmann to address the first deficiency; specifically, the succinic acid. The Examiner combines Pentel with Denninger to address the last three deficiencies; specifically, the fluorescent colorant, water or diethylene glycol, and the Acid

Blue 9. However, as previously discussed, in order to sustain a 103 rejection, there must be some reason or motivation to combine the references.

The objective of the present invention is to reduce smearing of ink-jet ink text or images upon highlighting. See page 1, line 11-13. As previously discussed, the objective of Pentel is to keep the tip of a marking pen from drying out, and the objective of Denninger is to reduce smearing. Nothing in Pentel or Denninger provides motivation to make such a combination. Also, there is no teaching or motivation to suggest that the combination of these two compositions would further reduce smearing. In fact, Denninger teaches away from Pentel. Specifically, Denninger teaches that acids cannot work in a highlighter composition, stating that “[t]he addition of acid however has not proven to be suitable in a practical context as on the one hand dyes frequently react to changes in the pH-value by color changes and on the other hand the addition of acids unstabilises [sic] the marking liquid itself” (see [0009]).

Also as previously discussed, Pentel and Kaufmann teach of a marking composition that keeps a marking pen tip from drying out. Where is the motivation to combine these two references to obtain a composition that reduces smearing? The fact that each invention claims to have solved the same problem suggest that there is no motivation to combine them. The Applicant contends that no person skilled in the art would be motivated to make such a combination and that any combination of these references is based on impermissible hindsight.

Furthermore, the Applicant has amended claim 1 from which claims 3, 7, 9, and 12 depend. As such, these claims require that the highlighter colorant must be an acid-functionalized pigment or a fluorescent colorant. As the combination of these references fails to include all the elements of the present claims and the combination of the present references is thought improper, the Applicant respectfully requests that the present rejections be withdrawn.

Claims 13-18 and 29-30

The Examiner has similarly combined Pentel, Denninger, and Kaufmann against various claims of this claim set. The Applicant renews the arguments above with respect to improper combination of references. Additionally, the Applicant has amended claim 13 from which claims 14-18 and 29-30 depend. As such, these claims require that the highlighter colorant must be an acid-functionalized pigment or a fluorescent colorant. As the combination of these references fails to include all the elements of the present claims and the

combination of the present references is thought improper, the Applicant respectfully requests that the present rejections be withdrawn.

Claims 19-26 and 31-32

The Examiner has similarly combined Pentel, Denninger, and Kaufmann against various claims of this claim set. The Applicant renews the arguments above with respect to improper combination of references. Additionally, the Applicant has amended claim 19 from which claims 20-26 and 31-32 depend. As such, these claims require that the highlighter colorant must be an acid-functionalized pigment or a fluorescent colorant. As the combination of these references fails to include all the elements of the present claims and the combination of the present references is thought improper, the Applicant respectfully requests that the present rejections be withdrawn.

CONCLUSION

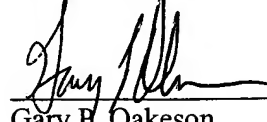
Since the Applicant has amended the claim set, the Pentel reference does not anticipate the present invention. Additionally, because there is not adequate motivation or suggestion to modify or combine the references, and because elements are missing in the various combinations, the Applicant respectfully asserts the Examiner has not satisfied the requirement for establishing a case of *prima facie* obviousness. Therefore, the pending claim set should be allowable. Reconsideration is respectfully requested.

In view of the foregoing, Applicants submit that claims 1-32 present allowable subject matter and allowance is respectfully requested. If any impediment to the allowance of these claims remains after consideration of the above remarks, and such impediment could be removed during a telephone interview, the Examiner is invited to telephone W. Bradley Haymond (Registration No. 35,186) at (541) 715-0159 so that such issues may be resolved as expeditiously as possible.

Please charge any additional fees except for Issue Fee or credit any overpayment to
Deposit Account No. 08-2025.

Dated this 28th day of April, 2006.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Gary P. Oakeson", is written over a horizontal line.

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